

Notice of Allowability

Application No.

10/708,072

Applicant(s)

GINDER ET AL.

Examiner

Marianne L. Padgett

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Terminal disclaimers of 2/8/2007 (amendment not entered).
2. ☒ The allowed claim(s) is/are 1-16, 18- 27.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 2/8/2007
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
~~Paper No./Mail Date~~ 3/28/07.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

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1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with James Proscia on 3/13/2007.

In the claims (as listed 8/23/2006):

In claim 12, line 4, change "non-magnetic" to --copper--; and

in line 5, after "substrate" insert --, wherein the pertinent magnetic powders are different than the matrix--.

In claims 16, line 1 change "soft magnetic binder" to --matrix is the soft magnetic matrix, and--.

Delete claim 17.

In claim 18, lines 1-2, change "soft magnetic binder" to -- matrix are the soft magnetic matrix, and --.

2. The following is an examiner's statement of reasons for allowance: the above amendment removes the possibility of nonmagnetic materials that may be polymeric or resins, and correct problems in the dependent claims, so that limitations recited therein are positively claimed, as discussed at the end of section 3 (bridging pages 3-4) of the action mailed 5/23/2006.

It is further noted that the product-by-process claims were rejoined with the process claims in the final rejection of 11/3/2006, as the critical aspect of using kinetics spraying with admixtures of permanent magnetic material plus a ductile metal binder were considered by the examiner in SN 10/064,583, now PN 7,179,539, over which this case is terminally disclaimed. Kinetics spraying allows for lower temperature processes, where metal may be employed as the binder (as opposed to polymers as

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exemplified in the prior art employed in the art rejection of section 6 in the action mailed 5/23/2006), while preserving important magnetic properties of the sprayed materials, where it is noted that important microstructural & magnetic affects result from the use of kinetics spraying to create this product.

With respect to the IDS of 2/8/2007, it is noted that the British reference, which is directed to paste coating techniques for forming permanent magnets, was considered in copending applications of present applicants. The pre-grant patent publication to Sampath et al., while including "cold spray gun" as suitable spray sources, the feedstocks contemplated therein are not inclusive of magnetic material. The article by McCune et al, while directed to "cold gas-dynamic spray method", i.e. kinetic spraying, including mixtures of NiCr + Cr₃C₂, does not discuss magnetic materials, but is otherwise equivalent to previously applied and discussed references to Van Steenkiste et al. or Alkhimov et al.

With respect references cited on the PTO-892, it is noted that the translation of JP 4-229602 corresponds to the patent of the Japanese abstract supplied by applicant (3/22/2004) & cited in the EPO search report, but is noted to employ a process that requires heating to the extent of forming liquid droplets of the magnetic material to the deposit via spraying, with no discussion of the use of magnetic fields during deposition. The US references to Madhava et al. (2006/0222776 A1, not prior art) & Tapphorn et al. (7,178,744 B2), are directed to powder spraying techniques of interest, but not for magnetic materials as claimed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marianne L. Padgett whose telephone number is (571) 272-1425. The examiner can normally be reached on M-F from about 8:30 a.m. to 4:30 p.m.

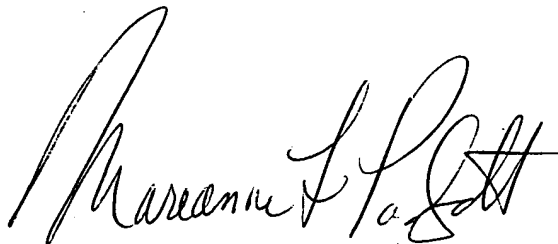
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks, can be reached at (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MLP/dictation software

3/2/2007 & 3/13/2007

A handwritten signature in black ink, appearing to read "Marianne Padgett". The signature is fluid and cursive, with a large initial "M" and a stylized "P".

**MARIANNE PADGETT
PRIMARY EXAMINER**